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                  CHEMCATS
NEWS   19 JUN 06  STN Patent Forums to be held in June 2005
NEWS   20 JUN 06  The Analysis Edition of STN Express with Discover!
                  (Version 8.0 for Windows) now available
NEWS   21 JUN 13  RUSSIAPAT: New full-text patent database on STN
NEWS   22 JUN 13  FRFULL enhanced with patent drawing images

NEWS EXPRESS  JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

NEWS HOURS    STN Operating Hours Plus Help Desk Availability
NEWS INTER    General Internet Information
NEWS LOGIN    Welcome Banner and News Items
NEWS PHONE    Direct Dial and Telecommunication Network Access to STN
NEWS WWW      CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that
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  * * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 09:47:40 ON 14 JUN 2005

=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.21

FILE 'STNGUIDE' ENTERED AT 09:47:50 ON 14 JUN 2005
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jun 10, 2005 (20050610/UP).

=> FIL HOME
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.06       0.27

FILE 'HOME' ENTERED AT 09:47:55 ON 14 JUN 2005

=> FIL STNGUIDE
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                     0.21       0.48

FILE 'STNGUIDE' ENTERED AT 09:48:03 ON 14 JUN 2005
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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jun 10, 2005 (20050610/UP).
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=> DIS SAVED

| NAME | CREATED | NOTES/TITLE |
|---|---|---|
| LNSEARCH/L | TEMP | 14 L-NUMBERS |
| SILANES/A | TEMP | 9 ANSWERS IN FILE CAPLUS |
| SILPHENOLS/A | TEMP | 11 ANSWERS IN FILE REGISTRY |
| TWOAMINOPOLY/Q | 16 APR 2001 | UPLOADED STRUCTURE |

=> DIS SAVED/S
NO SAVED SDI REQUESTS

=> file caplus

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.06 | 0.54 |

FILE 'CAPLUS' ENTERED AT 09:48:25 ON 14 JUN 2005
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FILE COVERS 1907 - 14 Jun 2005 VOL 142 ISS 25
FILE LAST UPDATED: 13 Jun 2005 (20050613/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> file reg

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.45 | 0.99 |

FILE 'REGISTRY' ENTERED AT 09:48:31 ON 14 JUN 2005
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COPYRIGHT (C) 2005 American Chemical Society (ACS)

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 JUN 2005 HIGHEST RN 852200-37-4
DICTIONARY FILE UPDATES: 13 JUN 2005 HIGHEST RN 852200-37-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

Please note that search-term pricing does apply when

conducting SmartSELECT searches.

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*                                                                    *
* The CA roles and document type information have been removed from  *
* the IDE default display format and the ED field has been added,    *
* effective March 20, 2005.  A new display format, IDERL, is now     *
* available and contains the CA role and document type information.  *
*                                                                    *
**********************************************************************

Crossover limits have been increased.  See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

=> e ammonium benzoate/cn
E1            1      AMMONIUM BENZHYDROXAMATE/CN
E2            1      AMMONIUM BENZIDINE-2,2'-DISULFONATE-PYROMELLITIC ANHYDRIDE P
                     OLYMER/CN
E3            1 --> AMMONIUM BENZOATE/CN
E4            1      AMMONIUM BENZOATE-FORMALDEHYDE-1,1-DIMETHYLHYDRAZINIUM OXALA
                     TE MIXTURE/CN
E5            1      AMMONIUM BENZYL MALEATE/CN
E6            1      AMMONIUM BENZYL PHENYL PYROPHOSPHATE/CN
E7            1      AMMONIUM BENZYL PHOSPHONATE/CN
E8            1      AMMONIUM BENZYL PHOSPHOROTETRATHIOATE/CN
E9            1      AMMONIUM BENZYL PYROPHOSPHATE/CN
E10           1      AMMONIUM BENZYLDITHIOCARBAMATE/CN
E11           1      AMMONIUM BERYLLIUM ARSENATE ((NH4)BEASO4)/CN
E12           1      AMMONIUM BERYLLIUM CHLORIDE ((NH4)2BE3CL8)/CN

=> e3
L1            1 "AMMONIUM BENZOATE"/CN

=> e phosphorous trichloride/cn
E1            1      PHOSPHOROUS TRIBROMIDE, TUNGSTEN COMPLEX/CN
E2            1      PHOSPHOROUS TRIBROMIDE, TUNGSTEN DERIV./CN
E3            1 --> PHOSPHOROUS TRICHLORIDE/CN
E4            1      PHOSPHOROUS TRICHLORIDE, (OC-6-11)-HEXAFLUOROANTIMONATE(1-)/
                     CN
E5            1      PHOSPHOROUS TRICHLORIDE, (OC-6-11)-HEXAFLUOROANTIMONATE(1-)-
                     D/CN
E6            3      PHOSPHOROUS TRICHLORIDE, 1-BUTANAMINIUM DERIV./CN
E7            1      PHOSPHOROUS TRICHLORIDE, 1-PROPANAMINIUM DERIV./CN
E8            2      PHOSPHOROUS TRICHLORIDE, ALUMINUM COMPLEX/CN
E9            2      PHOSPHOROUS TRICHLORIDE, ALUMINUM DERIV./CN
E10           6      PHOSPHOROUS TRICHLORIDE, BORON COMPLEX/CN
E11           6      PHOSPHOROUS TRICHLORIDE, BORON DERIV./CN
E12           1      PHOSPHOROUS TRICHLORIDE, BUTANOATE/CN

=> e3
L2            1 "PHOSPHOROUS TRICHLORIDE"/CN

=> file caplus
COST IN U.S. DOLLARS                          SINCE FILE      TOTAL
                                                   ENTRY    SESSION
FULL ESTIMATED COST                                 9.63      10.62

FILE 'CAPLUS' ENTERED AT 09:49:16 ON 14 JUN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.


FILE COVERS 1907 - 14 Jun 2005 VOL 142 ISS 25
FILE LAST UPDATED: 13 Jun 2005 (20050613/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> l1
L3 603 L1

=> l2
L4 5689 L2

=> l3 and l4
L5 7 L3 AND L4

=> d l5 1-7 ti

L5 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing ethers, esters or acid anhydrides especially for preparing tribenzoyl phosphite from ammonium benzoate and phosphorous chloride including separation of the ammonium chloride

L5 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for carrying out a solid-liquid reaction

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing N-phosphonomethylglycine by the reaction of hexahydrotriazine with triacyl phosphate in organic solvent and removing the soluble impurities

L5 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing N-phosphonomethylglycine by the reaction of hexahydrotriazine with triacyl phosphate in organic solvent

L5 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing α-aminophosphonic acids by the reaction of hexahydro triazine derivative with triorgano phosphate

L5 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for production of N-phosphonomethylglycine

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Reportable quantity adjustments; delisting of ammonium thiosulfate

=> d l5 1-7 ti fbib abs

L5 ANSWER 1 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing ethers, esters or acid anhydrides especially for preparing tribenzoyl phosphite from ammonium benzoate and phosphorous chloride including separation of the ammonium chloride
AN 2003:837019 CAPLUS
DN 139:307604
TI Method for producing ethers, esters or acid anhydrides especially for preparing tribenzoyl phosphite from ammonium benzoate and phosphorous chloride including separation of the ammonium chloride
IN Klopp, Ingo; Bogenstaetter, Thomas; Franke, Dirk
PA Basf Aktiengesellschaft, Germany
SO PCT Int. Appl., 12 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2003087025 | A1 | 20031023 | WO 2003-EP3867 | 20030414 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | | | DE 2002-10216638 A | 20020415 |
| DE 10216638 | A1 | 20031023 | DE 2002-10216638 | 20020415 |
| CA 2481222 | AA | 20031023 | CA 2003-2481222 | 20030414 |
| | | | DE 2002-10216638 A | 20020415 |
| | | | WO 2003-EP3867 W | 20030414 |
| EP 1497248 | A1 | 20050119 | EP 2003-720468 | 20030414 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK | | | | |
| | | | DE 2002-10216638 A | 20020415 |
| | | | WO 2003-EP3867 W | 20030414 |
| BR 2003009078 | A | 20050222 | BR 2003-9078 | 20030414 |
| | | | DE 2002-10216638 A | 20020415 |
| | | | WO 2003-EP3867 W | 20030414 |

AB Ethers, esters or acid anhydrides are advantageously obtained when a cake situated on a filtering element and consisting of a first reactant, which is selected from salts of organic or oxygen-containing inorg. acids or alcoholates, is flown though with a solution consisting of a second reactant, which is selected from inorg. or organic acid halides and alkyl halides, whereby the formed insol. halide salt remains on the filtering element. This enables the halide salt to be easily separated in an essentially quant. manner. Thus, ammonium benzoate was reacted with PCl3 in 1,2-dichloroethane in a glass pressure tube provided with a frit to give 18.6% PhCO2H-content in the filtrate, 1.1·1010 mPa·s·m-2 filter resistance of the ammonium benzoate at the reaction start, and 5.0·1010 mPa·s·m-2 filter resistance of the ammonium chloride at the reaction end.
RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for carrying out a solid-liquid reaction
AN 2003:202537 CAPLUS
DN 138:223603
TI Method for carrying out a solid-liquid reaction

IN Klopp, Ingo; Bogenstaetter, Thomas; Franke, Dirk; Munzinger, Manfred
PA Basf Aktiengesellschaft, Germany
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2003020411 | A1 | 20030313 | WO 2002-EP9659 | 20020829 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | | | DE 2001-10142284 | A 20010829 |
| DE 10142284 | A1 | 20030320 | DE 2001-10142284 | 20010829 |
| TW 592829 | B | 20040621 | TW 2002-91119416 | 20020827 |
| | | | DE 2001-10142284 | A 20010829 |
| CA 2458812 | AA | 20030313 | CA 2002-2458812 | 20020829 |
| | | | DE 2001-10142284 | A 20010829 |
| | | | WO 2002-EP9659 | W 20020829 |
| EP 1423187 | A1 | 20040602 | EP 2002-767452 | 20020829 |
| EP 1423187 | B1 | 20050302 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| | | | DE 2001-10142284 | A 20010829 |
| | | | WO 2002-EP9659 | W 20020829 |
| BR 2002012168 | A | 20040720 | BR 2002-12168 | 20020829 |
| | | | DE 2001-10142284 | A 20010829 |
| | | | WO 2002-EP9659 | W 20020829 |
| NZ 531344 | A | 20041029 | NZ 2002-531344 | 20020829 |
| | | | DE 2001-10142284 | A 20010829 |
| | | | WO 2002-EP9659 | W 20020829 |
| JP 2005501695 | T2 | 20050120 | JP 2003-524713 | 20020829 |
| | | | DE 2001-10142284 | A 20010829 |
| | | | WO 2002-EP9659 | W 20020829 |
| AT 289864 | E | 20050315 | AT 2002-767452 | 20020829 |
| | | | DE 2001-10142284 | A 20010829 |
| | | | WO 2002-EP9659 | W 20020829 |
| US 2004204605 | A1 | 20041014 | US 2004-487214 | 20040219 |
| | | | DE 2001-10142284 | A 20010829 |
| | | | WO 2002-EP9659 | W 20020829 |

AB A solid-liquid reaction is carried by (1) preparation of a reaction suspension containing a 1st reactant which is suspended and a 2nd reactant which is dissolved in a suspension medium, whereby 1 of the reaction products is insol. in the suspension medium, (2) feeding the reaction suspension through a longish reaction zone, whereby the Reynolds number of the flow <20,000, and (3) separation of the insol. reaction product. The method is advantageous in that the insol. reaction product is obtained in a form which is easy to filter. The method is especially suitable for manufacture of (PhCO2)3P by reacting PhCO2Na or PhCO2NH4 with PCl3.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing N-phosphonomethylglycine by the reaction of

hexahydrotriazine with triacyl phosphate in organic solvent and removing the soluble impurities

AN 2003:5971 CAPLUS

DN 138:56081

TI Method for producing N-phosphonomethylglycine by the reaction of hexahydrotriazine with triacyl phosphate in organic solvent and removing the soluble impurities

IN Vandenmersch, Hugues; Voss, Hartwig; Orsten, Stefan; Wulff, Christian

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|---|
| PI | WO 2003000704 | A2 | 20030103 | WO 2002-EP6903 | | 20020621 |
| | WO 2003000704 | A3 | 20030501 | | | |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW | | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | | |
| | | | | DE 2001-10130136 | A | 20010622 |
| | DE 10130136 | A1 | 20030102 | DE 2001-10130136 | | 20010622 |
| | CA 2451507 | AA | 20030103 | CA 2002-2451507 | | 20020621 |
| | | | | DE 2001-10130136 | A | 20010622 |
| | | | | WO 2002-EP6903 | W | 20020621 |
| | EP 1401846 | A2 | 20040331 | EP 2002-754734 | | 20020621 |
| | EP 1401846 | B1 | 20041215 | | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | | |
| | | | | DE 2001-10130136 | A | 20010622 |
| | | | | WO 2002-EP6903 | W | 20020621 |
| | BR 2002010569 | A | 20040803 | BR 2002-10569 | | 20020621 |
| | | | | DE 2001-10130136 | A | 20010622 |
| | | | | WO 2002-EP6903 | W | 20020621 |
| | NZ 530049 | A | 20040827 | NZ 2002-530049 | | 20020621 |
| | | | | DE 2001-10130136 | A | 20010622 |
| | | | | WO 2002-EP6903 | W | 20020621 |
| | JP 2004535438 | T2 | 20041125 | JP 2003-507107 | | 20020621 |
| | | | | DE 2001-10130136 | A | 20010622 |
| | | | | WO 2002-EP6903 | W | 20020621 |
| | AT 284890 | E | 20050115 | AT 2002-754734 | | 20020621 |
| | | | | DE 2001-10130136 | A | 20010622 |
| | | | | WO 2002-EP6903 | W | 20020621 |
| | TW 575579 | B | 20040211 | TW 2002-91113652 | | 20021018 |
| | | | | DE 2001-10130136 | A | 20010622 |
| | US 2004235664 | A1 | 20041125 | US 2003-481565 | | 20031222 |
| | | | | DE 2001-10130136 | A | 20010622 |
| | | | | WO 2002-EP6903 | W | 20020621 |

OS CASREACT 138:56081; MARPAT 138:56081

AB The invention relates to a method for producing N-phosphonomethylglycine from an aqueous mixture containing N-phosphonomethylglycine, ammonium halogenides and alkali halides or earth alkali halides and optionally, organic impurities in a dissolved form. According to the invention, (a) the pH-value of the mixture is regulated to a value of 2-8, (b) the mixture is separated by means of a

selective nanofiltration membrane, to obtain a retentate rich in N-phosphonomethylglycine and poor in halogenides and a permeate rich in halogenides and poor in N-phosphonomethylglycine and (c) the N-phosphonomethylglycine is prepared from the retentate. The inventive method enables the production of N-phosphonomethylglycine by simultaneously separating the halogenide salts thereof. Thus, reaction of ammonium benzoate with PCl3 in 1,2-dichloroethane below 36° for 30 min followed by treatment with 1,3,5-Tris(cyanomethyl)-1,3,5-triazacyclohexane and hydrolysis with aqueous HCl gave title compound along-with aminomethylphosphonic acid, bis(phosphinomethyl)glycine, glycine, NaCl/NH4Cl as dissolved impurities.

L5 ANSWER 4 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for producing N-phosphonomethylglycine by the reaction of hexahydrotriazine with triacyl phosphate in organic solvent
AN 2003:5970 CAPLUS
DN 138:56080
TI Method for producing N-phosphonomethylglycine by the reaction of hexahydrotriazine with triacyl phosphate in organic solvent
IN Wulff, Christian; Orsten, Stefan; Oftring, Alfred; Zehner, Peter
PA BASF Aktiengesellschaft, Germany
SO PCT Int. Appl., 29 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|---|
| PI | WO 2003000703 | A1 | 20030103 | WO 2002-EP6902 | | 20020621 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | | |
| | | | | DE 2001-10130135 | A | 20010622 |
| | DE 10130135 | A1 | 20030102 | DE 2001-10130135 | | 20010622 |
| | CA 2450781 | AA | 20030103 | CA 2002-2450781 | | 20020621 |
| | | | | DE 2001-10130135 | A | 20010622 |
| | | | | WO 2002-EP6902 | W | 20020621 |
| | EP 1401845 | A1 | 20040331 | EP 2002-754733 | | 20020621 |
| | EP 1401845 | B1 | 20050413 | | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | | |
| | | | | DE 2001-10130135 | A | 20010622 |
| | | | | WO 2002-EP6902 | W | 20020621 |
| | BR 2002010529 | A | 20040622 | BR 2002-10529 | | 20020621 |
| | | | | DE 2001-10130135 | A | 20010622 |
| | | | | WO 2002-EP6902 | W | 20020621 |
| | NZ 530026 | A | 20040730 | NZ 2002-530026 | | 20020621 |
| | | | | DE 2001-10130135 | A | 20010622 |
| | | | | WO 2002-EP6902 | W | 20020621 |
| | JP 2004532282 | T2 | 20041021 | JP 2003-507106 | | 20020621 |
| | | | | DE 2001-10130135 | A | 20010622 |
| | | | | WO 2002-EP6902 | W | 20020621 |
| | AT 293118 | E | 20050415 | AT 2002-754733 | | 20020621 |
| | | | | DE 2001-10130135 | A | 20010622 |
| | | | | WO 2002-EP6902 | W | 20020621 |

| | | | | | |
|---|---|---|---|---|---|
| US 2004236145 | A1 | 20041125 | US 2003-481579 | | 20031222 |
| | | | DE 2001-10130135 | A | 20010622 |
| | | | WO 2002-EP6902 | W | 20020621 |

OS CASREACT 138:56080; MARPAT 138:56080

AB The invention relates to a method for producing N-phosphonomethylglycine by reacting a hexahydrotriazine compound with a triacyl phosphate in an organic solvent and the saponification of the phosphono compound which is obtained after previous extraction into an aqueous phase, and separation of the organic phase. According to the invention, said method prevents decomposition of the organic solvent during saponification Thus, reaction of ammonium benzoate with PCl3 in 1,2-dichloroethane below 36° for 30 min followed by treatment with 1,3,5-Tris(cyanomethyl)-1,3,5-triazacyclohexane and hydrolysis with H2O gave title compound

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 5 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

TI Method for producing α-aminophosphonic acids by the reaction of hexahydro triazine derivative with triorgano phosphate

AN 2003:5969 CAPLUS

DN 138:56079

TI Method for producing α-aminophosphonic acids by the reaction of hexahydro triazine derivative with triorgano phosphate

IN Wulff, Christian; Orsten, Stefan; Oftring, Alfred

PA BASF Aktiengesellschaft, Germany

SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|
| PI WO 2003000702 | A1 | 20030103 | WO 2002-EP6901 | | 20020621 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | | |
| | | | DE 2001-10130134 | A | 20010622 |
| DE 10130134 | A1 | 20030102 | DE 2001-10130134 | | 20010622 |
| EP 1401847 | A1 | 20040331 | EP 2002-780837 | | 20020621 |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | | |
| | | | DE 2001-10130134 | A | 20010622 |
| | | | WO 2002-EP6901 | W | 20020621 |
| BR 2002010528 | A | 20040622 | BR 2002-10528 | | 20020621 |
| | | | DE 2001-10130134 | A | 20010622 |
| | | | WO 2002-EP6901 | W | 20020621 |
| US 2004236144 | A1 | 20041125 | US 2003-481576 | | 20031222 |
| | | | DE 2001-10130134 | A | 20010622 |
| | | | WO 2002-EP6901 | W | 20020621 |

OS CASREACT 138:56079; MARPAT 138:56079

AB The invention relates to a method for producing α-aminophosphonic acids, by reacting a hexahydro triazine derivative with a triorgano phosphate. The inventive method includes a phosphono compound as an intermediate step,

said phosphono compound being hydrolyzed into α-aminophosphonic acid. The invention also relates to said phosphono compound and the method for the production thereof. Thus, reaction of PCl3 with sodium benzoate in 1,4-dioxane followed by treatment with 1,3,5-tris(cyanomethyl)-1,3,5-triazacyclohexane and aqueous HCl hydrolysis gave 91% phosphonomethylglycine in 95.3% purity. The inventive method enables α-aminophosphonic acids to be produced in a simple and economical manner as well as ensuring a high yield and purity.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for production of N-phosphonomethylglycine
AN 2001:489409 CAPLUS
DN 135:76990
TI Method for production of N-phosphonomethylglycine
IN Wulff, Christian; Orsten, Stefan; Oftring, Alfred
PA Basf A.-G., Germany
SO PCT Int. Appl., 31 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | WO 2001047938 | A1 | 20010705 | WO 2000-EP13162 | 20001222 |
| | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | | | | DE 1999-19962601 A | 19991223 |
| | CA 2395420 | AA | 20010705 | CA 2000-2395420 | 20001222 |
| | | | | DE 1999-19962601 A | 19991223 |
| | | | | WO 2000-EP13162 W | 20001222 |
| | AU 2001057873 | A5 | 20010709 | AU 2001-57873 | 20001222 |
| | AU 779799 | B2 | 20050210 | | |
| | | | | DE 1999-19962601 A | 19991223 |
| | | | | WO 2000-EP13162 W | 20001222 |
| | EP 1240173 | A1 | 20020918 | EP 2000-993613 | 20001222 |
| | EP 1240173 | B1 | 20030514 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR | | | | |
| | | | | DE 1999-19962601 A | 19991223 |
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| | | | | DE 1999-19962601 A | 19991223 |
| | | | | WO 2000-EP13162 W | 20001222 |
| | AT 240337 | E | 20030515 | AT 2000-993613 | 20001222 |
| | | | | DE 1999-19962601 A | 19991223 |
| | | | | WO 2000-EP13162 W | 20001222 |
| | NZ 519593 | A | 20030530 | NZ 2000-519593 | 20001222 |
| | | | | DE 1999-19962601 A | 19991223 |
| | | | | WO 2000-EP13162 W | 20001222 |
| | JP 2003519155 | T2 | 20030617 | JP 2001-549408 | 20001222 |
| | | | | DE 1999-19962601 A | 19991223 |
| | | | | WO 2000-EP13162 W | 20001222 |
| | PT 1240173 | T | 20031031 | PT 2000-993613 | 20001222 |
| | | | | DE 1999-19962601 A | 19991223 |

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|---|---|---|---|---|---|
| ES 2199898 | T3 | 20040301 | ES 2000-993613 | | 20001222 |
| | | | DE 1999-19962601 | A | 19991223 |
| US 2003004370 | A1 | 20030102 | US 2002-168717 | | 20020624 |
| US 6818793 | B2 | 20041116 | | | |
| | | | DE 1999-19962601 | A | 19991223 |
| | | | WO 2000-EP13162 | W | 20001222 |
| US 2003166966 | A1 | 20030904 | US 2003-368577 | | 20030220 |
| US 6660878 | B2 | 20031209 | | | |
| | | | DE 1999-19962601 | A | 19991223 |
| | | | WO 2000-EP13162 | W | 20001222 |
| | | | US 2002-168717 | A3 | 20020624 |
| US 2004063996 | A1 | 20040401 | US 2003-664892 | | 20030922 |
| US 6855841 | B2 | 20050215 | | | |
| | | | DE 1999-19962601 | A | 19991223 |
| | | | WO 2000-EP13162 | W | 20001222 |
| | | | US 2002-168717 | A3 | 20020624 |
| | | | US 2003-368577 | A3 | 20030220 |
| US 2004092765 | A1 | 20040513 | US 2003-678626 | | 20031006 |
| | | | DE 1999-19962601 | A | 19991223 |
| | | | WO 2000-EP13162 | W | 20001222 |
| | | | US 2002-168717 | A3 | 20020624 |

OS CASREACT 135:76990

AB The invention relates to a method for production of N-phosphonomethylglycine, by reaction of a hexahydrotriazine derivative with a triacyl phosphite. The method produces N-phosphonomethylglycine in a simple and cost-effective manner and in high yield. Thus, reaction of sodium benzoate with PCl3 in 1,4-dioxane followed by treatment with hexahydrotriazine gave 91% N-phosphonomethylglycine in 95.3% purity.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 7 OF 7 CAPLUS COPYRIGHT 2005 ACS on STN

TI Reportable quantity adjustments; delisting of ammonium thiosulfate

AN 1990:83178 CAPLUS

DN 112:83178

TI Reportable quantity adjustments; delisting of ammonium thiosulfate

CS United States Environmental Protection Agency, Washington, DC, 20460, USA

SO Federal Register (1989), 54(155), 33426-84, 14 Aug 1989
CODEN: FEREAC; ISSN: 0097-6326

DT Journal

LA English

AB Under the Federal Comprehensive Environmental Response, Compensation, and Liability Act, the EPA is promulgating final reportable quantities (RQ) for 258 hazardous substances and hazardous waste streams. NH4 thiosulfate is removed from the list of hazardous substances since the median lethal concentration is well above 500 mg/L for aquatic toxicity. Also included in this final rule is replacement of the registered trademark Gelthane with the generic name difocal, as several companies manufacture this substance.

```
=> solid liquid
        964328 SOLID
        273712 SOLIDS
       1166532 SOLID
                 (SOLID OR SOLIDS)
        684535 LIQUID
        122807 LIQUIDS
        777393 LIQUID
                 (LIQUID OR LIQUIDS)
        954221 LIQ
         90936 LIQS
        989634 LIQ
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                (LIQ OR LIQS)
       1369964 LIQUID
                (LIQUID OR LIQ)
L6       27636 SOLID LIQUID
                (SOLID(W)LIQUID)

=> liquid solid
        684535 LIQUID
        122807 LIQUIDS
        777393 LIQUID
                (LIQUID OR LIQUIDS)
        954221 LIQ
         90936 LIQS
        989634 LIQ
                (LIQ OR LIQS)
       1369964 LIQUID
                (LIQUID OR LIQ)
        964328 SOLID
        273712 SOLIDS
       1166532 SOLID
                (SOLID OR SOLIDS)
L7       20721 LIQUID SOLID
                (LIQUID(W)SOLID)

=> l6 or l7
L8       44025 L6 OR L7

=> carboxylate or alkoxide
         64903 CARBOXYLATE
         16535 CARBOXYLATES
         73995 CARBOXYLATE
                (CARBOXYLATE OR CARBOXYLATES)
         18676 ALKOXIDE
         14493 ALKOXIDES
         26625 ALKOXIDE
                (ALKOXIDE OR ALKOXIDES)
L9       99860 CARBOXYLATE OR ALKOXIDE

=> halide
        147910 HALIDE
        123214 HALIDES
L10     214670 HALIDE
                (HALIDE OR HALIDES)

=> l9 and l10
L11       3299 L9 AND L10

=> l8 and l11
L12          4 L8 AND L11

=> d l12 1-4 ti

L12  ANSWER 1 OF 4  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Method for carrying out a solid-liquid reaction

L12  ANSWER 2 OF 4  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   The ethoxycarbonylation of 4,4'-dibromobiphenyl with palladium-phosphine
     catalysts. Effect of solid-liquid phase transfer
     catalysts

L12  ANSWER 3 OF 4  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Reactions of aryl halides with phenoxides and alkoxides
     by phase transfer catalysis
```

L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic activation of carboxylic anions in two-phase **solid-liquid** media. Preparation of sterically hindered carboxylic acid esters

=> d l12 1-4 ti fbib abs

L12 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for carrying out a **solid-liquid** reaction
AN 2003:202537 CAPLUS
DN 138:223603
TI Method for carrying out a **solid-liquid** reaction
IN Klopp, Ingo; Bogenstaetter, Thomas; Franke, Dirk; Munzinger, Manfred
PA Basf Aktiengesellschaft, Germany
SO PCT Int. Appl., 17 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI WO 2003020411 | A1 | 20030313 | WO 2002-EP9659 | 20020829 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG | | | | |
| | | | DE 2001-10142284 A | 20010829 |
| DE 10142284 | A1 | 20030320 | DE 2001-10142284 | 20010829 |
| TW 592829 | B | 20040621 | TW 2002-91119416 | 20020827 |
| | | | DE 2001-10142284 A | 20010829 |
| CA 2458812 | AA | 20030313 | CA 2002-2458812 | 20020829 |
| | | | DE 2001-10142284 A | 20010829 |
| | | | WO 2002-EP9659 W | 20020829 |
| EP 1423187 | A1 | 20040602 | EP 2002-767452 | 20020829 |
| EP 1423187 | B1 | 20050302 | | |
| R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK | | | | |
| | | | DE 2001-10142284 A | 20010829 |
| | | | WO 2002-EP9659 W | 20020829 |
| BR 2002012168 | A | 20040720 | BR 2002-12168 | 20020829 |
| | | | DE 2001-10142284 A | 20010829 |
| | | | WO 2002-EP9659 W | 20020829 |
| NZ 531344 | A | 20041029 | NZ 2002-531344 | 20020829 |
| | | | DE 2001-10142284 A | 20010829 |
| | | | WO 2002-EP9659 W | 20020829 |
| JP 2005501695 | T2 | 20050120 | JP 2003-524713 | 20020829 |
| | | | DE 2001-10142284 A | 20010829 |
| | | | WO 2002-EP9659 W | 20020829 |
| AT 289864 | E | 20050315 | AT 2002-767452 | 20020829 |
| | | | DE 2001-10142284 A | 20010829 |
| | | | WO 2002-EP9659 W | 20020829 |
| US 2004204605 | A1 | 20041014 | US 2004-487214 | 20040219 |
| | | | DE 2001-10142284 A | 20010829 |
| | | | WO 2002-EP9659 W | 20020829 |

AB A **solid-liquid** reaction is carried by (1) preparation of a reaction suspension containing a 1st reactant which is suspended and a 2nd reactant which is dissolved in a suspension medium, whereby 1 of the reaction products is insol. in the suspension medium, (2) feeding the reaction suspension through a longish reaction zone, whereby the Reynolds number of the flow <20,000, and (3) separation of the insol. reaction product. The method is advantageous in that the insol. reaction product is obtained in a form which is easy to filter. The method is especially suitable for manufacture of (PhCO2)3P by reacting PhCO2Na or PhCO2NH4 with PCl3.

RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

TI The ethoxycarbonylation of 4,4'-dibromobiphenyl with palladium-phosphine catalysts. Effect of **solid-liquid** phase transfer catalysts

AN 1994:457076 CAPLUS

DN 121:57076

TI The ethoxycarbonylation of 4,4'-dibromobiphenyl with palladium-phosphine catalysts. Effect of **solid-liquid** phase transfer catalysts

AU Teranishi, Kenji; Takagi, Satoru; Sato, Toshihiko; Hanaoka, Takaaki; Takeuchi, Kazuhiko; Sugi, Yoshihiro

CS Cent. Res. Lab., Gen. Sekiyu K. K., Kawasaki, 210, Japan

SO Sekiyu Gakkaishi (1994), 37(3), 333-6
CODEN: SKGSAE; ISSN: 0582-4664

DT Journal

LA Japanese

OS CASREACT 121:57076

AB The effect of **solid-liquid** phase transfer catalysts was studied in the ethoxycarbonylation of 4,4'-dibromobiphenyl (I) with palladium-phosphine catalysts. Palladium catalysts with 1,3-bis(diphenylphosphino)propane (dppp) as ligand gave high activity and selectivity for Et 4'-bromobiphenyl-4-**carboxylate** using sodium bicarbonate as base and tetrabutylammonium iodide as phase transfer catalyst. Tetrabutylammonium chloride gave the highest activity among the tetrabutylammonium **halides**, and tetraethylammonium bromide was the most effective among the tetraalkylammonium bromides. Sodium carbonate and bicarbonate and potassium carbonate were effective bases for the removal of hydrogen bromide, whereas lithium carbonate and sodium acetate retarded the carbonylation. The reaction was also retarded with increasing carbon monoxide pressure. The rate determining step is the oxidative addition of I to palladium catalyst similar to the conventional system in homogeneous catalysis, and the phase transfer catalyst enhances the absorption of hydrogen bromide to increase the total reaction rate.

L12 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN

TI Reactions of aryl **halides** with phenoxides and **alkoxides** by phase transfer catalysis

AN 1984:490061 CAPLUS

DN 101:90061

TI Reactions of aryl **halides** with phenoxides and **alkoxides** by phase transfer catalysis

AU Cho, Bong Rae; Park, Sung Dae

CS Dep. Chem., Korea Univ., Seoul, 132, S. Korea

SO Bulletin of the Korean Chemical Society (1984), 5(3), 126-9
CODEN: BKCSDE; ISSN: 0253-2964

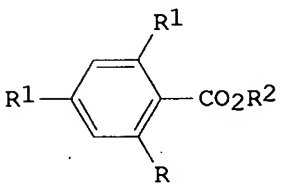
DT Journal

LA English

AB Reaction of aryl **halides** with phenoxides and **alkoxides** was studied under phase-transfer catalytic conditions. 2,4-R(O2N)C6H3X

(I; R = O2N, H; X = F, Cl) reacted readily with phenoxides in NaOH(aq)-C6H6 containing Bu4N+ Br-, affording the products quant. Although I did not react with **alkoxides** under the same conditions, the reactions were complete within 2 h at room temperature under **solid-liquid,** phase- transfer catalysis. The reactivity of I decreased in the stated order of R and X, consistent with the SNAr mechanism. The reactivity of oxy anions was lower with liquid-liquid than with **solid-liquid,** phase-transfer catalysis. The results were explained by the concentration and degree of hydration of the anion in C6H6.

L12 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2005 ACS on STN
TI Catalytic activation of carboxylic anions in two-phase **solid-liquid** media. Preparation of sterically hindered carboxylic acid esters
AN 1977:106129 CAPLUS
DN 86:106129
TI Catalytic activation of carboxylic anions in two-phase **solid-liquid** media. Preparation of sterically hindered carboxylic acid esters
AU Normant, Henri; Laurenco, Claude
CS Lab. Synth. Org., Paris, Fr.
SO Comptes Rendus des Seances de l'Academie des Sciences, Serie C: Sciences Chimiques (1976), 283(11), 483-6
CODEN: CHDCAQ; ISSN: 0567-6541
DT Journal
LA French
OS CASREACT 86:106129
GI




I

AB Hindered K benzoates were esterified by alkyl **halides** and Me2NCH2CH2NMe2 catalyst to give six esters I (R = OH, Me; R1 = H, Me; R2 = PhCH2, 1-hexyl, PhCOCH2, 4-BrC6H4COCH2). Similarly prepared were 14 RCR1R2CO2R3 [R = Me, H, Ph; R1 = Me, Ph; R2 = Me, Et, Ph; R3 = phenylalkyl, C6-8 alkyl, (CH2)3Br, CH2COMe, CH2OEt], benzyl cyclohexanecarboxylate, and 1-hexyl cyclohexanecarboxylate.

=> save temp all rxnsrch/l
L# LIST L1-L12 HAS BEEN SAVED AS 'RXNSRCH/L'

=> logoff hold

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 58.95 | 69.57 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -8.03 | -8.03 |

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| NEWS | 6 | MAR 03 | REGISTRY/ZREGISTRY - Sequence annotations enhanced |
| NEWS | 7 | MAR 03 | MEDLINE file segment of TOXCENTER reloaded |
| NEWS | 8 | MAR 22 | KOREAPAT now updated monthly; patent information enhanced |
| NEWS | 9 | MAR 22 | Original IDE display format returns to REGISTRY/ZREGISTRY |
| NEWS | 10 | MAR 22 | PATDPASPC - New patent database available |
| NEWS | 11 | MAR 22 | REGISTRY/ZREGISTRY enhanced with experimental property tags |
| NEWS | 12 | APR 04 | EPFULL enhanced with additional patent information and new fields |
| NEWS | 13 | APR 04 | EMBASE - Database reloaded and enhanced |
| NEWS | 14 | APR 18 | New CAS Information Use Policies available online |
| NEWS | 15 | APR 25 | Patent searching, including current-awareness alerts (SDIs), based on application date in CA/CAplus and USPATFULL/USPAT2 may be affected by a change in filing date for U.S. applications. |
| NEWS | 16 | APR 28 | Improved searching of U.S. Patent Classifications for U.S. patent records in CA/CAplus |
| NEWS | 17 | MAY 23 | GBFULL enhanced with patent drawing images |
| NEWS | 18 | MAY 23 | REGISTRY has been enhanced with source information from CHEMCATS |
| NEWS | 19 | JUN 06 | STN Patent Forums to be held in June 2005 |
| NEWS | 20 | JUN 06 | The Analysis Edition of STN Express with Discover! (Version 8.0 for Windows) now available |
| NEWS | 21 | JUN 13 | RUSSIAPAT: New full-text patent database on STN |
| NEWS | 22 | JUN 13 | FRFULL enhanced with patent drawing images |

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| NEWS INTER | General Internet Information |
| NEWS LOGIN | Welcome Banner and News Items |
| NEWS PHONE | Direct Dial and Telecommunication Network Access to STN |
| NEWS WWW | CAS World Wide Web Site (general information) |

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COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.21 | 0.21 |

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AND TECHNOLOGY CORPORATION, AND FACHINFORMATIONSZENTRUM KARLSRUHE

FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Jun 10, 2005 (20050610/UP).

=> DIS SAVED

| NAME | CREATED | NOTES/TITLE |
|---|---|---|
| LNSEARCH/L | TEMP | 14 L-NUMBERS |
| RXNSRCH/L | TEMP | 12 L-NUMBERS |
| SILANES/A | TEMP | 9 ANSWERS IN FILE CAPLUS |
| SILPHENOLS/A | TEMP | 11 ANSWERS IN FILE REGISTRY |
| TWOAMINOPOLY/Q | 16 APR 2001 | UPLOADED STRUCTURE |

=> DIS SAVED/S
NO SAVED SDI REQUESTS

=> ACT RXNSRCH/L

| | | | | | |
|---|---|---|---|---|---|
| L1 | ( | 1) | SEA FILE=REGISTRY ABB=ON PLU=ON | "AMMONIUM BENZOATE"/CN | |
| L2 | ( | 1) | SEA FILE=REGISTRY ABB=ON PLU=ON | "PHOSPHOROUS TRICHLORIDE"/CN | |
| L3 | ( | 603) | SEA FILE=CAPLUS ABB=ON PLU=ON | L1 | |
| L4 | ( | 5689) | SEA FILE=CAPLUS ABB=ON PLU=ON | L2 | |
| L5 | ( | 7) | SEA FILE=CAPLUS ABB=ON PLU=ON | L3 AND L4 | |
| L6 | ( | 27636) | SEA FILE=CAPLUS ABB=ON PLU=ON | SOLID LIQUID | |
| L7 | ( | 20721) | SEA FILE=CAPLUS ABB=ON PLU=ON | LIQUID SOLID | |
| L8 | ( | 44025) | SEA FILE=CAPLUS ABB=ON PLU=ON | L6 OR L7 | |
| L9 | ( | 99860) | SEA FILE=CAPLUS ABB=ON PLU=ON | CARBOXYLATE OR ALKOXIDE | |
| L10 | ( | 214670) | SEA FILE=CAPLUS ABB=ON PLU=ON | HALIDE | |
| L11 | ( | 3299) | SEA FILE=CAPLUS ABB=ON PLU=ON | L9 AND L10 | |
| L12 | ( | 4) | SEA FILE=CAPLUS ABB=ON PLU=ON | L8 AND L11 | |

=> file caplus
COST IN U.S. DOLLARS

| | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 0.06 | 0.27 |

FILE 'CAPLUS' ENTERED AT 12:25:43 ON 14 JUN 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
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FILE COVERS 1907 - 14 Jun 2005 VOL 142 ISS 25
FILE LAST UPDATED: 13 Jun 2005 (20050613/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

```
=> filter cake
        227348 FILTER
        118530 FILTERS
        276683 FILTER
                  (FILTER OR FILTERS)
         33604 CAKE
          8470 CAKES
         37928 CAKE
                  (CAKE OR CAKES)
L13       9341 FILTER CAKE
                  (FILTER(W)CAKE)

=> solid reactant
        964328 SOLID
        273712 SOLIDS
       1166532 SOLID
                  (SOLID OR SOLIDS)
         70389 REACTANT
         43747 REACTANTS
        109107 REACTANT
                  (REACTANT OR REACTANTS)
L14        518 SOLID REACTANT
                  (SOLID(W)REACTANT)

=> l13(l)l14
L15           1 L13(L)L14

=> d l15 ti

L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Manufacture of silica from clay by calcination conversion


=> williamson
L16        1325 WILLIAMSON

=> l13 and l16
L17           0 L13 AND L16

=> l8
        964328 SOLID
        273712 SOLIDS
       1166532 SOLID
                  (SOLID OR SOLIDS)
        684535 LIQUID
        122807 LIQUIDS
        777393 LIQUID
                  (LIQUID OR LIQUIDS)
        954221 LIQ
         90936 LIQS
```

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        989634 LIQ
                 (LIQ OR LIQS)
       1369964 LIQUID
                 (LIQUID OR LIQ)
         27636 SOLID LIQUID
                 (SOLID(W)LIQUID)
        684535 LIQUID
        122807 LIQUIDS
        777393 LIQUID
                 (LIQUID OR LIQUIDS)
        954221 LIQ
         90936 LIQS
        989634 LIQ
                 (LIQ OR LIQS)
       1369964 LIQUID
                 (LIQUID OR LIQ)
        964328 SOLID
        273712 SOLIDS
       1166532 SOLID
                 (SOLID OR SOLIDS)
         20721 LIQUID SOLID
                 (LIQUID(W)SOLID)
L18      44025 L6 OR L7

=> l13 and l18
L19        209 L13 AND L18

=> l13(l)l18
L20        142 L13(L)L18

=> d l20 132-142 ti

L20  ANSWER 132 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Working of siliceous manganese ores

L20  ANSWER 133 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Refining iron-contaminated zinc by filtration and centrifugation

L20  ANSWER 134 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Pilot tests of hydrometallurgical method of treatment of copper-bismuth
     concentrates

L20  ANSWER 135 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Formation of a new technology of production of antimony and its compounds

L20  ANSWER 136 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Pilot-plant experiments on the extraction of lead and tellurium compounds
     from the cinder dust of dry electrostatic filters from the sulfuric acid
     industry

L20  ANSWER 137 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Aqueous lixiviation of sodium mat melts containing tungsten and molybdenum

L20  ANSWER 138 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Adipic dinitrile purification

L20  ANSWER 139 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Porous structures from poly(tetrafluoroethylene) resins

L20  ANSWER 140 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Hydrometallurgical method for processing zinc filter cake

L20  ANSWER 141 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
```

TI Effect of soluble salts present in coals on the flotation of the latter

L20 ANSWER 142 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Treatment of polymetallic ores and concentrates by the sulfatization method

=> ester or ether or anhydride
562209 ESTER
419143 ESTERS
785048 ESTER
(ESTER OR ESTERS)
461960 ETHER
141962 ETHERS
520380 ETHER
(ETHER OR ETHERS)
196270 ANHYDRIDE
31410 ANHYDRIDES
206356 ANHYDRIDE
(ANHYDRIDE OR ANHYDRIDES)
L21 1339114 ESTER OR ETHER OR ANHYDRIDE

=> l20 and l21
L22 2 L20 AND L21

=> d l22 1-2 ti

L22 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for extracting dioscin and diosgenin

L22 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
TI Solid-liquid separations of slurries obtained from the leaching of phosphatic clay wastes

=> d l22 1-2 ti fbib abs

L22 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method for extracting dioscin and diosgenin
AN 2004:376503 CAPLUS
DN 141:274550
TI Method for extracting dioscin and diosgenin
IN Zhang, Wanju; Zhou, Taikang; Wang, Fuxiang
PA Peop. Rep. China
SO Faming Zhuanli Shenqing Gongkai Shuomingshu, 11 pp.
CODEN: CNXXEV
DT Patent
LA Chinese
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | CN 1394869 | A | 20030205 | CN 2002-125262 | 20020722 |
| | | | | CN 2002-125262 | 20020722 |

AB The method comprises soaking the rhizoid stem of Chinese yam (Dioscorea japonica) in water for 24 h, grinding in water, incubation with lipase at 40° and pH 7 for 30 h, filtering to obtain filtrate I and **filter cake** I (containing cellulose, lignin, etc.); and standing filtrate for 10 h, filtering to obtain supernatant, suspension, and starch. Mixing the the **filter cake** I with the suspension and supernatant, adding water to **solid/liquid** ratio of 1:3-4, boiling for 1 h, filtering; repeating the mixing, boiling, and filtering processes to obtain **filter cake** II and filtrates, concentrating the filtrates, extracting with alc. several times, concentrating,

adsorbing with macroporous adsorbent (such as activated C, diatomite, bentonite, or zeolite), drying, extracting with >95% ethanol, precipitating with Et
**ether** to obtain soluble tetrasaccharide saponin; liquefying the starch and **filter cake** II with saccharifying enzyme at pH 6.0-6.4, separating to obtain cellulose, lignin, and soluble trisaccharide saponin; saccharifying completely the liquified liquor at (60±2)° and pH 4.0-4.5 for 24 h, filtering to obtain filtrate and **filter cake** III; hydrolyzing the trisaccharide saponin and the **filter cake** III with 2 mol HCl, neutralizing, filtering to obtain **filter cake** IV, drying the **filter cake** IV at 80°, extracting with solvent gasoline (its b.p. of 120°) to obtain diosgenin, and collecting the wastewater from all processes for recovering ethanol and glucose.

L22 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2005 ACS on STN
TI Solid-liquid separations of slurries obtained from the leaching of phosphatic clay wastes
AN 1992:553889 CAPLUS
DN 117:153889
TI Solid-liquid separations of slurries obtained from the leaching of phosphatic clay wastes
AU Davis, J. G.; Wilemon, G. M.; Scheiner, B. J.
CS Tuscaloosa Res. Cent., US Bur. Mines, Tuscaloosa, AL, 35486, USA
SO Advances in Filtration and Separation Technology (1990), 2(Filtr. Sep. Environ. Control Technol.), 375-83
CODEN: ASTHEA
DT Journal
LA English
AB The extraction of phosphate values from fine-particle wastes generated during conventional mining and beneficiation of phosphate ore was studied, with emphasis on leaching of dried wastes using $H_2SO_4$ in the presence of MeOH. Separation of insol. gangue from desired leach liquor in these slurries is challenging because of the fine grain size of the unleached residues. Vacuum filtrations of the slurries yield **filter cakes** that are tight and difficult to wash, resulting in a loss of product and handling problems. A combination of flocculating agents has been discovered that enhances the settling properties of the solids in these slurries, facilitating **solid-liquid** separation Flocculation of the slurry with polyethylene oxide (PEO) or a combination of hydroxyethyl cellulose (HEC)-PEO or hydroxypropyl cellulose (HPC)-PEO should enable **solid-liquid** decantation steps. Faster settling rates and better consolidation of the leach tails were obtained when the cellulose polymers were added as aqueous solns. Use of the HEC-PEO combination for flocculation is the best choice for this application because the HEC is less expensive than PEO or HPC. The effects of parameters such as polymer dosage and order of mixing on the efficiency of flocculation and settling are discussed.

=> d his

(FILE 'HOME' ENTERED AT 12:24:58 ON 14 JUN 2005)

FILE 'STNGUIDE' ENTERED AT 12:25:08 ON 14 JUN 2005
ACT RXNSRCH/L
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L1 ( 1) SEA FILE=REGISTRY ABB=ON PLU=ON "AMMONIUM BENZOATE"/CN
L2 ( 1) SEA FILE=REGISTRY ABB=ON PLU=ON "PHOSPHOROUS TRICHLORIDE"/CN
L3 ( 603) SEA FILE=CAPLUS ABB=ON PLU=ON L1
L4 ( 5689) SEA FILE=CAPLUS ABB=ON PLU=ON L2
L5 ( 7) SEA FILE=CAPLUS ABB=ON PLU=ON L3 AND L4

```
L6  (     27636)SEA FILE=CAPLUS ABB=ON  PLU=ON  SOLID LIQUID
L7  (     20721)SEA FILE=CAPLUS ABB=ON  PLU=ON  LIQUID SOLID
L8  (     44025)SEA FILE=CAPLUS ABB=ON  PLU=ON  L6 OR L7
L9  (     99860)SEA FILE=CAPLUS ABB=ON  PLU=ON  CARBOXYLATE OR ALKOXIDE
L10 (    214670)SEA FILE=CAPLUS ABB=ON  PLU=ON  HALIDE
L11 (      3299)SEA FILE=CAPLUS ABB=ON  PLU=ON  L9 AND L10
L12 (         4)SEA FILE=CAPLUS ABB=ON  PLU=ON  L8 AND L11
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     FILE 'CAPLUS' ENTERED AT 12:25:43 ON 14 JUN 2005
L13         9341 FILTER CAKE
L14          518 SOLID REACTANT
L15            1 L13(L)L14
L16         1325 WILLIAMSON
L17            0 L13 AND L16
L18        44025 L8
L19          209 L13 AND L18
L20          142 L13(L)L18
L21      1339114 ESTER OR ETHER OR ANHYDRIDE
L22            2 L20 AND L21

=> d l20 121-131 ti

L20  ANSWER 121 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Deparaffination of petroleum

L20  ANSWER 122 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Use of ion flotation for extracting tungsten and molybdenum from waste
     products from the Nal'chik hydrometallurgical plant

L20  ANSWER 123 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Filters with forelayers and sludge thickeners

L20  ANSWER 124 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Oxalic acid.  IV.  Decomposition of calcium oxalate with sulfuric acid

L20  ANSWER 125 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Removal of water from the filter cake of a highly dispersed suspension

L20  ANSWER 126 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Leaching of zinc filter cakes in the presence of reducing agents

L20  ANSWER 127 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Industrial adoption of the hydrosulfating of lead filter cakes with the
     extraction of zinc, cadmium, and indium

L20  ANSWER 128 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Internal flow mechanism in filter cakes

L20  ANSWER 129 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Improvement of gold recovery in the cyanidation circuit of the Louis Moore
     gold mine

L20  ANSWER 130 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Processing of common salts.  VII.  Preparation of nitrogen-phosphorus-
     potassium fertilizer and gypsum dihydrate

L20  ANSWER 131 OF 142  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Pilot-plant tests of chlorine-soda leaching of low-grade
     molybdenum-bearing products


=> d l20 121,124 ti fbib abs
```

L20 ANSWER 121 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Deparaffination of petroleum
AN 1977:538529 CAPLUS
DN 87:138529
TI Deparaffination of petroleum
IN Hall, Ralph R.; Shaw, David H.
PA Exxon Research and Engineering Co., USA
SO Ger. Offen., 27 pp.
CODEN: GWXXBX
DT Patent
LA German
FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|
| PI DE 2659292 | A1 | 19770714 | DE 1976-2659292 | 19761229 |
| DE 2659292 | C2 | 19870625 | | |
| | | | US 1976-646006 A | 19760102 |
| GB 1564430 | A | 19800410 | GB 1976-53849 | 19761223 |
| | | | US 1976-646006 A | 19760102 |
| JP 52085205 | A2 | 19770715 | JP 1976-156630 | 19761227 |
| JP 63017876 | B4 | 19880415 | | |
| | | | US 1976-646006 A | 19760102 |
| NL 7614583 | A | 19770705 | NL 1976-14583 | 19761230 |
| NL 186098 | B | 19900417 | | |
| NL 186098 | C | 19900917 | | |
| | | | US 1976-646006 A | 19760102 |
| FR 2337197 | A1 | 19770729 | FR 1976-39631 | 19761230 |
| FR 2337197 | B1 | 19830107 | | |
| | | | US 1976-646006 A | 19760102 |
| CA 1089392 | A1 | 19801111 | CA 1976-268952 | 19761230 |
| | | | US 1976-646006 A | 19760102 |
| US 4145275 | A | 19790320 | US 1977-813174 | 19770705 |
| | | | US 1976-646006 A1 | 19760102 |

AB In the deparaffination of petroleum products, yields are increased by filtering an oil-wax-solvent slurry, washing the wax **filter cake** with solvent at -43° to -4°, and recycling 25-100% initial filtrate to deparaffination so that the oil content of the deparaffination solvent is <9 volume%. Thus, lubricant base oil (viscosity 600 SUS at 37.8°) was deparaffinated in 7:3 MeCOEt-PhMe, filtered at -12.2°, and washed with 7:3 MeCOet-PhMe to give an oil with pour point-4.4°. As long as the oil content of the diluent was ≤9% (used-fresh diluent ratio ≤0.93:1) the **liquid-solid** ratio remained at 3.2-3.5:1, but at higher oil contents the **liquid-solid** ratio increased sharply.

L20 ANSWER 124 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Oxalic acid. IV. Decomposition of calcium oxalate with sulfuric acid
AN 1972:45678 CAPLUS
DN 76:45678
TI Oxalic acid. IV. Decomposition of calcium oxalate with sulfuric acid
AU Sasaki, Eiichi
CS Ofuna Tech. Serv. Lab., Mitsui Toatsu Chem. Inc., Yokohama, Japan
SO Kogyo Kagaku Zasshi (1971), 74(12), 2426-9
CODEN: KGKZA7; ISSN: 0368-5462
DT Journal
LA Japanese
AB In the **solid-liquid** reaction (COO)2Ca+H2SO4.dblarw.(COOH)2+CaSO4, the optimum amount of H2SO4 to produce (COOH)2 was 20-4% concentration and 2.3-2.5 equivs. of the salt; washing the **filter cake** with dilute and warm H2SO4 was effective in inhibiting the formation of (COO)2Ca by the reverse reaction.

=> d l20 110-120 ti

L20 ANSWER 110 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI An improved analysis for the forced gas deliquoring of filter cakes and porous media

L20 ANSWER 111 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Filtering apparatus and a method of filtering a liquid-solids suspension

L20 ANSWER 112 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Filtration of phosphogypsum in the dihydrate method of phosphoric acid production

L20 ANSWER 113 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI The use of flocculants and surfactants in the filtration of mineral slurries

L20 ANSWER 114 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI An exploratory study of a combined sonic agglomeration and crossflow filtration system for hot gas cleanup

L20 ANSWER 115 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Method and apparatus for controlling the treatment of a liquid-solid mixture, especially the dewatering of sludges

L20 ANSWER 116 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Free-flowing and nondusting additives for rubbers

L20 ANSWER 117 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Recovery of silver, copper and zinc from partially roasted pyrite concentrate by ferric sulfate leaching

L20 ANSWER 118 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Apparatus for manufacturing moldings, especially ore pellets from **filter cakes** from a **solid-liquid** filter

L20 ANSWER 119 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI A numerical integration of the differential equations describing the formation of and flow in compressible filter cakes

L20 ANSWER 120 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Feeding in of the flocculant in the purification of fluorine-containing waste waters

=> d l20 99-109 ti

L20 ANSWER 99 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Comprehensive utilization of arsenic filter cake

L20 ANSWER 100 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Interfacial problems in solid-liquid separation

L20 ANSWER 101 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Backwashing of liquid-solid filters

L20 ANSWER 102 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Metal powder pigments

L20 ANSWER 103 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Dehydration of solid-liquid mixtures

L20 ANSWER 104 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Filter cake washing

L20 ANSWER 105 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Mechanical dewatering of residual sludge

L20 ANSWER 106 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Aggregation of coal suspensions by polyelectrolytes

L20 ANSWER 107 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Effect of seed crystals on the decomposition and crystallization of calcium sulfate dihydrate in production of wet-process phosphoric acid from the phosphorites of Karatau

L20 ANSWER 108 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Filter method and apparatus

L20 ANSWER 109 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI A novel filtration thickener

=> d l20 108 ti fbib abs

L20 ANSWER 108 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Filter method and apparatus
AN 1983:597051 CAPLUS
DN 99:197051
TI Filter method and apparatus
IN Janecek, Louis; Wykoff, Richard H.
PA Amsted Industries, Inc., USA
SO Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|---|---|---|---|---|---|---|
| PI | EP 91822 | A2 | 19831019 | EP 1983-302050 | | 19830412 |
| | EP 91822 | A3 | 19840801 | | | |
| | EP 91822 | B1 | 19861203 | | | |
| | R: BE, DE, FR, GB, IT, NL, SE | | | | | |
| | | | | US 1982-367444 | A | 19820412 |
| | NO 8301278 | A | 19831013 | NO 1983-1278 | | 19830411 |
| | NO 159241 | B | 19880905 | | | |
| | NO 159241 | C | 19881214 | | | |
| | | | | US 1982-367444 | A | 19820412 |
| | AU 8313403 | A1 | 19831020 | AU 1983-13403 | | 19830411 |
| | AU 555582 | B2 | 19861002 | | | |
| | | | | US 1982-367444 | A | 19820412 |
| | JP 58186407 | A2 | 19831031 | JP 1983-62389 | | 19830411 |
| | JP 61029765 | B4 | 19860709 | | | |
| | | | | US 1982-367444 | A | 19820412 |
| | ES 521366 | A1 | 19841001 | ES 1983-521366 | | 19830411 |
| | | | | US 1982-367444 | A | 19820412 |
| | CA 1201071 | A1 | 19860225 | CA 1983-425620 | | 19830411 |
| | | | | US 1982-367444 | A | 19820412 |
| | ES 532441 | A1 | 19850401 | ES 1984-532441 | | 19840511 |
| | | | | US 1982-367444 | A | 19820412 |
| | US 4622144 | A | 19861111 | US 1984-622976 | | 19840621 |
| | | | | US 1982-367444 | A1 | 19820412 |

AB The filtration of a **liquid-solid** suspension is carried out until the rate decreases to a certain point, the suspension feed is

stopped, and pneumatic pressure is applied to force out the remaining liquid When the **filter cake** is not substantially impervious to the compressed air, a flexible, impervious curtain is used to apply the pressure to the liquid and cake. The filter has a vertical, cylindrical, filtering element, a central, hollow, sealed drum that decreases the volume, and a flexible tube (plastic, rubber) that is hung from above and disposed in the space between the drum and the filtering surface.

=> d l20 88-98 ti

L20 ANSWER 88 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI The use of a simple filtration apparatus in showing that high speed blunging affects filter pressing

L20 ANSWER 89 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Recovery of noble and accompanying metals from electronic scraps

L20 ANSWER 90 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Pressure filtration of a fine-grained chalcopyrite concentrate

L20 ANSWER 91 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Preparation of boric acid from crude borax

L20 ANSWER 92 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Filters or centrifuges - aspects of selection criteria based on comparative studies

L20 ANSWER 93 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Sodium-limestone double alkali flue gas desulfurization process with improved limestone utilization

L20 ANSWER 94 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Preparation of poly(phenylene sulfide) resins in the presence of polar amide solvents

L20 ANSWER 95 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Continuous multistage final treatment of coal-containing wastewater with flocculant addition in thickener

L20 ANSWER 96 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Kinetics of formation of a flow-inhibiting boundary layer in liquid-solid filtration

L20 ANSWER 97 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Filter cake dewatering due to sudden reduction in filtration area of cake surface

L20 ANSWER 98 OF 142 CAPLUS COPYRIGHT 2005 ACS on STN
TI Solid-liquid separation technology

=> d his

(FILE 'HOME' ENTERED AT 12:24:58 ON 14 JUN 2005)

FILE 'STNGUIDE' ENTERED AT 12:25:08 ON 14 JUN 2005
ACT RXNSRCH/L

L1 ( 1) SEA FILE=REGISTRY ABB=ON PLU=ON "AMMONIUM BENZOATE"/CN
L2 ( 1) SEA FILE=REGISTRY ABB=ON PLU=ON "PHOSPHOROUS TRICHLORIDE"/CN
L3 ( 603) SEA FILE=CAPLUS ABB=ON PLU=ON L1
L4 ( 5689) SEA FILE=CAPLUS ABB=ON PLU=ON L2

```
L5  (         7)SEA FILE=CAPLUS ABB=ON  PLU=ON  L3 AND L4
L6  (     27636)SEA FILE=CAPLUS ABB=ON  PLU=ON  SOLID LIQUID
L7  (     20721)SEA FILE=CAPLUS ABB=ON  PLU=ON  LIQUID SOLID
L8  (     44025)SEA FILE=CAPLUS ABB=ON  PLU=ON  L6 OR L7
L9  (     99860)SEA FILE=CAPLUS ABB=ON  PLU=ON  CARBOXYLATE OR ALKOXIDE
L10 (    214670)SEA FILE=CAPLUS ABB=ON  PLU=ON  HALIDE
L11 (      3299)SEA FILE=CAPLUS ABB=ON  PLU=ON  L9 AND L10
L12 (         4)SEA FILE=CAPLUS ABB=ON  PLU=ON  L8 AND L11
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    FILE 'CAPLUS' ENTERED AT 12:25:43 ON 14 JUN 2005
L13        9341 FILTER CAKE
L14         518 SOLID REACTANT
L15           1 L13(L)L14
L16        1325 WILLIAMSON
L17           0 L13 AND L16
L18       44025 L8
L19         209 L13 AND L18
L20         142 L13(L)L18
L21     1339114 ESTER OR ETHER OR ANHYDRIDE
L22           2 L20 AND L21

=> reactive
        268032 REACTIVE
           139 REACTIVES
L23     268129 REACTIVE
                 (REACTIVE OR REACTIVES)

=> l23(l)l13
L24          57 L23(L)L13

=> d l24 47-57 ti

L24  ANSWER 47 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Cyano organic sulfonyl chlorides

L24  ANSWER 48 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Basic calcium phosphate adsorbents and catalysts

L24  ANSWER 49 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Chemotherapeutic nitrofurans. II. The formation and some reactions of
     derivatives of 3-amino-2-iminooxazolidine

L24  ANSWER 50 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Polyphosphoric acid as a reagent in organic chemistry. VII. Acylation

L24  ANSWER 51 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   The preparation of geminally substituted 4-bromobutylamines. III.
     4-Bromo-3,3-dimethylbutylamine

L24  ANSWER 52 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Indones. XXIV. Reactions of dichloroindanones with phenols

L24  ANSWER 53 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   4-Aryl-4-piperidyl ketones

L24  ANSWER 54 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Magnesium hydroxide product

L24  ANSWER 55 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI   Pyrazoles

L24  ANSWER 56 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
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TI  Bis(2-carboxyisobutyl) sulfide

L24  ANSWER 57 OF 57  CAPLUS  COPYRIGHT 2005 ACS on STN
TI  Dead burned magnesia

=> d l24 47 ti fbib asb
'ASB' IS NOT A VALID FORMAT FOR FILE 'CAPLUS'

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ABS --------- GI and AB
ALL --------- BIB, AB, IND, RE
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DALL -------- ALL, delimited (end of each field identified)
DMAX -------- MAX, delimited for post-processing
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FBIB -------- AN, BIB, plus Patent FAM
IND --------- Indexing data
IPC --------- International Patent Classifications
MAX --------- ALL, plus Patent FAM, RE
PATS -------- PI, SO
SAM --------- CC, SX, TI, ST, IT
SCAN -------- CC, SX, TI, ST, IT (random display, no answer numbers;
              SCAN must be entered on the same line as the DISPLAY,
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IMAX -------- MAX, indented with text labels
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OIBIB ------- OBIB, indented with text labels

SBIB -------- BIB, no citations
SIBIB ------- IBIB, no citations

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              containing hit terms
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HITSTR ------ HIT RN, its text modification, its CA index name, and
              its structure diagram
HITSEQ ------ HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
FHITSTR ----- First HIT RN, its text modification, its CA index name, and
              its structure diagram
FHITSEQ ----- First HIT RN, its text modification, its CA index name, its
              structure diagram, plus NTE and SEQ fields
KWIC -------- Hit term plus 20 words on either side
OCC --------- Number of occurrence of hit term and field in which it occurs

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an arrow prompt (=>).  Examples of formats include: TI; TI,AU; BIB,ST;
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ENTER DISPLAY FORMAT (BIB):end

=> d l24 47 ti fbib abs

L24 ANSWER 47 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Cyano organic sulfonyl chlorides
AN 1957:34990 CAPLUS
DN 51:34990
OREF 51:6690h-i,6691a-b
TI Cyano organic sulfonyl chlorides
IN Comte, Frederick
PA Monsanto Chemical Co.
DT Patent
LA Unavailable
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | US 2775609 | | 19561225 | US | |

AB An improved and reproducible process is reported for carrying out the reaction Cl3P:NO2SACOCl (I) → ClO2SACN (II) + POCl3 (where A is a bivalent organic group) at a predeterminable and definite temperature, and involving ArSO2NH2 (III) (where Ar is an aromatic group) as a conversion moderator. [In the following, all parts are by weight] A mixture of 263 parts I (A = p-C6H4) and 166 parts POCl heated at 60-65° in vacuo (200 mm.) until about 90% POCl3 was removed, further heated to 190°, 10 parts III (Ar = p-MeC6H4) added, the mixture heated 3 hrs. at 190° in vacuo (200 mm.) while POCl3 distilled as rapidly as formed. heated an addnl. hr. at 190° in vacuo (100 mm.), cooled to 50°, 156 parts PhMe added, the whole heated to 70°, filtered, and the **filter cake** washed with 56 parts hot PhMe (65°) yielded 125 parts II (A = p-C6H4). An inert diluent may or may not be present, and may or may not act as solvent for I, II, or III. Preferred III contain Ar = Ph, MeC6H4, Me2C6H3, Me3C6H2, Me4C6H,EtC6H4, PrC6H4, BuC6H4, PhC6H4, or C10H7, whereas less preferred III contain aryl groups with such substituents as O2N, H2N, HO, MeO, Ac, or Cl. The amts. of III may vary from 2 to 10 parts/100 parts I, and the temperature from 150° to 190°. A in I may be CH2, C2H4, C18H36, cyclopentylene, cyclohexylene, p-C6H4, as well as bivalent groups derived from the phenanthrene, naphthalene, nicotine, and furan nuclei, substituted or not by O2N or Cl. The **reactive** groups CN and SO2Cl render II exceptionally useful as intermediates in the synthesis of other organic compds.

=> d l24 36-46 ti

L24 ANSWER 36 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Forming carbides of refractory reactive metals in fused sodium or potassium

L24 ANSWER 37 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI 2,2-Bis(4-hydroxyaryl)propanes

L24 ANSWER 38 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Metalized reactive monoazo dyes

L24 ANSWER 39 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Azo triazole dyes

L24 ANSWER 40 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Extraction of lithium compounds from spodumene

L24 ANSWER 41 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Chlorination of alkylpyrazines

L24 ANSWER 42 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Bisphenols

L24 ANSWER 43 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Alkyl ethers of tertiary steroid alcohols

L24 ANSWER 44 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Potential anticancer agents. XI. Synthesis of nucleosides derived from 6-deoxy-L-idofuranose

L24 ANSWER 45 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Selective reduction by calcium hexammine. I. Aromatic hydrocarbons

L24 ANSWER 46 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Syntheses of 4-amino-3-isoxazolidinone (cycloserine) and some analogs

=> d l24 43 ti fbib abs

L24 ANSWER 43 OF 57 CAPLUS COPYRIGHT 2005 ACS on STN
TI Alkyl ethers of tertiary steroid alcohols
AN 1961:48837 CAPLUS
DN 55:48837
OREF 55:9476a-e
TI Alkyl ethers of tertiary steroid alcohols
IN Engelfried, Otto; Schenck, Martin
PA Schering Akt.-Ges.
DT Patent
LA Unavailable
FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|---|---|---|---|---|---|
| PI | DE 1062698 | | 19590806 | DE | |
| | GB 908284 | | | GB | |
| | US 3052693 | | 1962 | US | |

OS CASREACT 55:48837
AB Tertiary steroid alcs. of the androstane, estrane, and pregnane series, bearing the tertiary OH group and an ethynyl group on the same C atom, were treated with alkylating agents, optionally with protection of addnl. **reactive** groups, to give the title compds., useful as pharmaceuticals. Thus, 6.3 g. 17-ethynylandrostene-3,17-diol in 100 cc. tetrahydrofuran was added at -80 to -60° during 10 min. to a mixture of 150 cc. liquid NH3 and 0.46 g. Na in the presence of a trace of Fe(NO3)3. The mixture was stirred 1-2 hrs. Subsequently, 1.25 g. MeI in 10 cc. tetrahydrofuran was added, the mixture stirred 3 hrs., poured onto ice, acidified with AcOH, the precipitate filtered off, and the **filter cake** washed. This crude product on acetylation and chromatographic purification over Al2O3 gave 3-acetoxy-17-methoxy-17-ethynylandrostene, m. 166-8°, which (after saponification) gave the free alc., m. 168.5-70.5°. The latter was oxidized by the Oppenauer method to give 17-ethynyltestosterone 17-methyl ether, m. 129-31°, [α]D 150°, ε241 16,300, λ 3.10, 4.77, 5.98, 6.17, and 9.12 μ. Similarly prepared were: 17-ethynyl-19-nortestosterone Me ether, m. 122.5-4.5°, ε240 16,650, λ 3.04, 6.00, 6.19, and 9.17 μ; 17α-ethynyl-17-ethoxy-5-androsten-3β-ol, m. 161-4° (3-acetate m. 124.5-5-5°, which was converted to

17α-ethynyltestosterone Et ether, m. 105-8°, ε240 17,160, λ 3.1, 4.78, 6.0, 6.2, and 9.25 μ); 17α-ethynyl-1,4-androstadien-17-ol-3-one Me ether, m. 134.5-5.5° (hexane), ε203 4,160, ε243 16,020; 17α-ethynyl-17-methoxy-4,6-androstadien-3-one, m. 96.5-8.5°, ε284 26,420, 3.09, 4.75, 6.00, 6.17, 6.29, and 9.12 μ; 17α-ethynyl-17-ethoxy-4,6-androstadien-3-one, m. 125-7°; 17α-ethynyl-6α-methyltestosterone Me ether, m. 133-5°, ε241 15,370; λ 3.06, 4.75, 5.98, 6.20, and 9.14 μ; 3-ethynyl-3-methoxyandrostan-17-one, m. 125.5-7°, λ 3.00, 4.74, 5.74, and 9.17 μ; 17α-ethynylestradiol 3,17-dimethyl ether, m. 143-4° (EtOAc); 17α-ethynylestradiol 17-monomethyl ether, m. 170.5-2° (MeOH), ε285 1960, ε280 2170, ε205 18,170; 20α-ethynyl-20-methoxy-5-pregnen-3β-ol, m. 182-4° (EtOAc), which on oxidation gave 20α-ethynyl-20-methoxy-4-pregnen-3-one, m. 213-15° (EtOAc), ε241 16,430.

=> logoff hold

| COST IN U.S. DOLLARS | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| FULL ESTIMATED COST | 81.32 | 81.59 |

| DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) | SINCE FILE ENTRY | TOTAL SESSION |
|---|---|---|
| CA SUBSCRIBER PRICE | -5.11 | -5.11 |

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STN INTERNATIONAL SESSION SUSPENDED AT 12:42:37 ON 14 JUN 2005